TRANSMITTAL SLIP

(Date)

1 1/4 x 1 1/8 x 3/8 Amplifier.

TO:

3 trans

BUILDING | ROOM NO.

1 ~~Hone~~ Audio cathode follower.

REMARKS:

STAT

1 1/16" wide x 3" long

3/8" thick

w/ fittings

filter for batt source and batt;

-40°C +60°C

FROM:

Good noise figure

dual systematic review.

27 Feb 1956

VIDEO AMPLIFIER -

1. Measurement of Transistor Bandwidth:

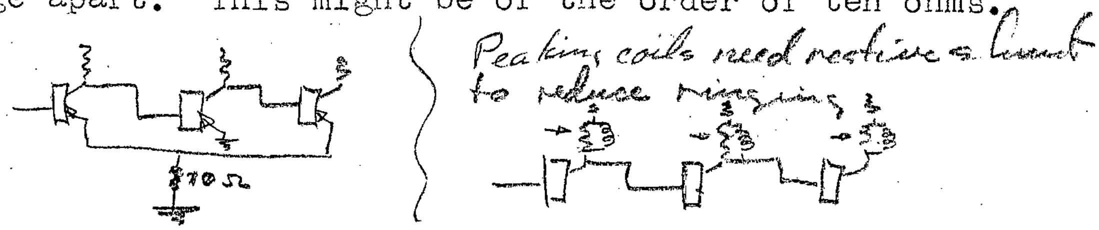
Capacitance in the load of a transistor is reflected into the input multiplied by beta. This means that the shielded cable input to a techtronix could have a capacitance large enough that when it is multiplied by beta (at the input) the bandwidth is seriously restricted.

The way to avoid this would be to use the probe for the techtronix.

2. Improvement of Bandwidth:

Peaking coils are easiest to install and adjust.

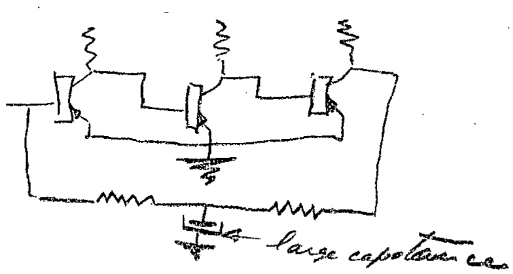
Improvement can also be obtained by using an unbipassed degenerative resistor in a common emitter lead of two stages, one stage apart. This might be of the order of ten ohms.



3. Bias Stabilization:

A resistive, dc feedback path from output to input is necessary to stabilize the bias in the direct coupled circuit.

this also gives some degree of temperature stabilization.



4. Temperature Stabilization:

Low temperature performance of the direct coupled job is pretty good.

At high temperature the input impedence decreases, decreasing the gain. This effect can be minimized by increasing the value of the collector to supply resistance.

5. Input Impedence:

It is about 2000 ohms resistive and 250 mmf at 1mc. The resistance increases and the capacitance decreases at lower frequencies - it is believed.

6. Tips for Soldering:

Low heat (25 watt) G.E. soldering iron.
Isolate soldering iron from line.
Use heat sink.

7. Pulse stretcher:

The pulse stretcher will put a capacitance across the output and thus will restrict the bandwidth. Some means must be used to isolate this capacity. (grounded collector, pulse transformer???????)

Conversation with [redacted]

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